



Joe Rodriguez, a machinist, programs the 6-axis milling machine to cut and form rocket motors rings.

846th Test Squadron Fabrication element keeps test track on track

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With Christmas around the corner, Santa will be using the magic of his elves to keep his sled in top-notch order. But at Holloman, the High-Speed Test Track sleds rely on a unique element to maintain mission readiness. The 846th Test Squadron High Speed Test Track Fabrication element manufactures and repairs high-speed test vehicles used in evaluation of America's newest air operations."

The element makes use of different trades and skills to create the unique parts used on test track sleds.

Before high-speed sleds can race down the track, specialized parts must be created from scratch to support the sled and its super-heated rocket engines. The fabrication element not only makes each part for the track, Quiroja said, but they also import the metals needed.

The fabrication element completes its mission of test vehicle upkeep with different operations including machining, welding, bending, forming, heat treating and painting. To accomplish these different jobs, the element employs the use of several state-of-the-art machines, said John Morris, general foreman.

"Our machinists have a variety of tools they

use to create parts for the sleds," Morris said. "We have computer-controlled machines as well as manually-operated ones that have given us the ability to cut our fabrication time in half."

Some of the tools used by the element include two, large boring mills for sled mounting, several milling machines used to make precise cuts, and a 6-axis machining center that is able to cut a piece of metal with designs e-mailed to it from the engineers.

Parts maintained by the element include the sled's slippers, the term used to describe the braces that hold the sled onto the track. Other parts include motor rings, used to secure the rocket engines to the sled and bulkheads, which

separate the different stages of rocket engines.

With the test track continuing its mission, the fabrication element faces different challenges.

"The biggest challenge facing our shop is money," Quiroja said. "There is not enough of it to keep pace with our civilian counterparts. We know what is needed for the shop, but because of the challenges facing our country, like the war on terrorism, many things, such as newer tools, are just not available."

Although the element faces challenges, Quiroja said there is a sense of satisfaction in his work with every run of the test track.

"Watching our customers' reactions is enough for me," Quiroja said. "These are customers who have years of experience in their career field, but when they see their product rocket down the track, they turn into joyful, 9-year-old children. It makes you feel like you did something right because they come back for our service."

Morris said it comes down to the teamwork of the element to get the job done.

"When the country needs something, everybody here kicks into high gear and works together to accomplish our mission. We are a family that is committed to having the best track in the entire Air Force. Our customers have come back for our help time and time again and will continue to come back because of our dedication."



Mark Goga, an experimental welder, uses a high-pressure water jet to cut slipper profiles for a rocket sled.



Photos by Airman Stephen Collier

Ed Trexler, an expert machinist, aligns a bulkhead to drill precise holes for mounting to a high-speed sled.



A pilot ejects from a high-speed sled during a test run of the front fuselage of an F-16 Fighting Falcon

Jack Wood, an experimental welder, welds alignment rings to a push adapter plate used to separate rocket engines on a six-rocket sled.